Before the
Federal Communications Commission
Washington DC

In the Matter of	)	
	)	
Improving Public Safety Communications	)	
In the 800 MHz Band	)	WT Docket No. 02-55
	)	
Consolidating the 900 MHz Industrial/Land	)	
Transportation and Business Pool Channels	)	

To: the Commission

Reply Comments of
the United Telecom Council

Jill M. Lyon
Vice President & General Counsel
United Telecom Council
1901 Pennsylvania Ave., NW
Fifth Floor
Washington, DC 20006
202-872-0030

August 7, 2002

SUMMARY

UTC adheres to its initial comment position urging strict technical regulations in the 800 MHz band to prevent interference, coupled with regulatory flexibility to allow incumbent licensees to adopt efficient technology and shared systems. Beyond high costs and serious disruption to mission-critical systems, mandatory re-banding of the 800 MHz band would not resolve interference from low-site digital cellularized systems to high-site analog private land mobile radio systems. UTC's position is supported by a large number of commenters, some of which are Public Safety licensees. UTC also opposes mandatory re-banding plans forcing critical infrastructure systems to function as a buffer between Public Safety and commercial cellular systems, and/or forcing Public Safety to vacate the 800 MHz band. Either option would seriously disrupt communications that are essential to the public welfare and delay the implementation of advanced, efficient technologies.

UTC also has reservations about a new proposal circulated by the Private Wireless Coalition. Although UTC appreciates efforts toward consensus, the proposal currently leaves open more questions than answers. How would forced retuning be funded? What impact would re-banding have on Canadian and Mexican border areas? Should incumbents be grandfathered from limits on power levels proposed in guard bands proposed by the Private Wireless Coalition? Why restrict permitted technology if technical rules will solve interference without barring growth? These are serious considerations that must

be answered before the FCC considers adopting the current compromise proposal.

The only certain solution to the interference problem is stricter technical rules and enforcement of them. Out-of-band emissions need to be made more stringent. Moreover, licensees causing interference need to be held responsible for the costs associated with resolving it. Finally, UTC recommends that the Commission require CMRS to notify all certified 800 MHz coordinators 30 days in advance of initiating transmission from a new cellsite/base station, in order to assist coordinators and licensees with identifying potential sources of interference to co-and adjacent-channel licensees. UTC also supports FCC re-examination of the 800 MHz band prior to the adoption of new rules in order to assess the impact that they may have on incumbent systems.

The United Telecom Council (UTC, the Council)) appreciates this opportunity to offer its reply to the approximately 200 sets of initial comments filed in this controversial proceeding.[1] The Council's members operate most of the largest non-commercial systems in the 800 MHz band and will be impacted nationwide by the Commission's decision in this matter.

During the period since comments were filed in May, UTC has been among the many interested parties that have continued discussions and worked to find common ground in an attempt to offer the Commission a single "solution" to the many issues arising from this proceeding. UTC's goals have been 1) to find a means to resolve and prevent harmful interference to Public Safety, critical infrastructure (CI) and other systems caused by low-site, cellularized radio system architecture; 2) to minimize harmful disruption to incumbent systems in carrying out a solution; and 3) to position the regulatory framework of this extremely important private land mobile radio frequency band to meet the needs of eligibles as well, or better, in the future than it does currently.

Based on comments filed and subsequent discussions, UTC has refined the position offered in its initial comments.[2] However, UTC continues to recommend against mandatory re-banding of incumbent systems in the 800 MHz band, preferring voluntary correction through market-based solutions coupled with real improvements in technical rules to prevent interference. The Council offers herein specific technical recommendations to help resolve and prevent

[1] Improving Public Safety Communications in the 800 MHz Band, Consolidating the 900 MHz Industrial/Land Transportation and Business Pool Channels, WT Docket No. 02-55, *Notice of Proposed Rulemaking,* FCC 02-81, released March 15, 2002 (NPR).

interference between licensees, as well as its response to a compromise proposal now under discussion among several parties in this proceeding.

I. A Large Number of Commenters Urges the FCC Not to Mandate Retuning or Relocation of Incumbent Systems.

A large percentage of the commenters in this proceeding disagrees with Nextel's and others' quick conclusion that re-banding is the only solution to the problem of interference. As Carolina Power and Light Company and TXU Business Services aptly, if colorfully, described, "as engaging a read as Nextel's 'White Paper' on the interference problems is, one cannot help being reminded of the story of the child who, having murdered his parents, pleads with the court for mercy because he is an orphan."[3] Re-banding may suit the interests of a few entities unhappy with the regulatory framework in which they chose to operate, or seeking an opportunity to gain more spectrum in a crowded band; however, most licensees view the prospect of forced relocation – some for a second time – as an unnecessary hardship.[4] The Commission has hundreds of pages before it providing detail about 800 MHz systems across the country, the services they provide to most of the U.S. economy and the severe impact of re-banding proposals upon them.

---

[2] Comments of the United Telecom Council on the *Notice of Proposed Rulemaking*, WT Docket 02-55, filed May 6, 2002 ("UTC's Comments").
[3] Comments of Carolina Power and Light Company and TXU Business Services, at 6.
[4] *See, e.g.,* Id. at 5; Comments of Access Spectrum; Comments of American Electric Power Company, Inc.; Comments of Duke Energy Corporation; Comments of the American Petroleum Institute; Comments of the Ad Hoc Wireless Alliance; Comments of Delmarva Power & Light and Atlantic City Electric Company; Comments of Kenwood Communications Corporation; Comments of SCANA Corporation; Comments of Lubrizol; Comments of Omaha Public Power District & Metropolitan Utilities District of Omaha; Initial Comments of Pinnacle West Capital Corporation; Comments of Sid Richardson Energy Services; Comment of Skitronics, L.L.C.

Beyond the problems inherent in forced re-banding, many commenters either implicitly or explicitly support UTC's call for tighter technical rules to prevent interference, coupled with regulatory flexibility to permit market-based solutions to the interference problem and permit future growth.[5] The Council renews its support for this solution in these Reply Comments, refined through an additional three months of discussions across the 800 MHz user community.

II. Many Traditional Public Safety Licenses Are Among the Commenters Opposing Nextel's White Paper Proposal.

While public reports surrounding this proceeding have indicated widespread support for the Nextel White Paper position among traditional Public Safety eligibles, UTC notes that this is not, in fact, the case. The Public Safety community's comments reflect a wide variety of opinions concerning the 800 MHz band,[6] and several entities oppose Nextel's proposal.[7] These entities stress, as have UTC and many other commenters, the huge difficulties inherent in mandatory retuning and/or re-banding of complex systems, as well as the costs. While some of these entities' systems have experienced interference from Nextel's system or others, they prefer technical solutions to a "one size fits all" resolution that in fact may suit very few. UTC urges the FCC to consider the wide variety of both systems and opinion within the Public Safety community and to avoid blanket assumptions in considering Public Safety interests in this proceeding.

---

[5] *See, e.g.,* Comments of Illinois Power Company; Comments of the American Water Works Association; Comments of Exelon Corporation; Comments of Questar Corporation; Comments of SCANA Corporation; Comments of Southwest Louisiana Electric Membership Corporation; Initial Comments of Pinnacle West Capital Corporation; Comments of Xcel Energy Services, Inc.

[6] *See, e.g.,* Comments of the Public Safety Improvement Coalition, at 3.

III. UTC Renews Its Objections to Mandatory Re-banding As an Effective Interference Resolution Tool.

As many commenters have stated, no re-banding proposal would effectively eliminate all forms of interference, and the record is replete with discussions of the high costs and disruption involved with mandatory re-tuning or relocation to other frequency bands.[8] UTC certainly agrees with these commenters, and with the FCC's own statement that critical infrastructure operations should not be put at risk: "it would not appear advisable to require a station associated with the restoration of electrical power service to precipitously discontinue service."[9] All of the re-banding proposals put forth in the record of this proceeding would have serious consequences for CI entities.

A. Plans providing for Business and Industrial/Land Transportation systems as "buffers" Between Public Safety and CMRS are dangerous to Critical Infrastructure systems.

While industry and FCC discussions appear to have moved beyond the initial proposals advanced for the 800 MHz band, UTC remains extremely concerned about a focus on "segregating" traditional Public Safety systems from low-site, cellularized CMRS operations. Emphasizing this kind of solution tends to encourage a bandplan placing CMRS licensees at one end of the band and traditional Public Safety eligibles at the other. In such plans, all other licensees would be migrated to a small piece of spectrum between these blocks, in

---

[7] *See, e.g.,* Comments of the City of Baltimore, Maryland; Comments of the City of Newport News; Comments of Fairfax County, Virginia; Comments of the State of Maryland.
[8] *See, e.g.,* Comments of King County Information and Telecommunications Services Division for an excellent summary of these issues.
[9] NPR at ¶ 34.

essence to provide a buffer to protect Public Safety licensees from CMRS interference – presumably by suffering that interference themselves.

This is an unacceptable solution to CI entities, which are charged with protecting the provision of basic services to all Americans. CI systems must be able to depend on the same level of interference-free, reliable communications as traditional Public Safety licensees, with which they often share their systems[10] and with which they generally respond to the same emergencies. CI industry licensees should not be required to accept harmful interference from entities claiming to be in compliance with FCC Rules simply due to the inclusion of critical infrastructure in the Industrial/Land Transportation, rather than the Public Safety, frequency pool. Only technical requirements forcing interference resolution and prevention, and the elimination of strict user pools to permit advanced, multi-user systems, will ensure that CI and other current Business and Industrial/Land Transportation eligibles enjoy the interference-free communications to which they are entitled.

B. Plans requiring Public Safety to move out of the 800 MHz band would not eliminate interference from cellularized CMRS systems and would slow the growth of advanced Public Safety systems.

The Commission also received several proposals that would move Public Safety systems out of the 800 MHz band, generally to the existing allocation at 700 MHz. UTC submits that this solution is a mis-direction.

Moving the victims of interference (or the small number of reported victims among many hundreds of other systems), while leaving the interferor without

[10] *See, e.g.,* Comments of Gainesville Regional Utilities.

requiring interference resolution, would subject all other licensees to system degradation unfairly. The problem caused by a mix of technologies and licensee types should be cured within the band, regardless of whether any party chooses to leave it.

UTC also is concerned that Public Safety eligibles themselves would be harmed over the long term by a forced move to 700 MHz. As stated in UTC's Comments, utilities often develop and build systems on which traditional Public Safety eligibles operate, to alleviate the long buying cycles and financial constraints suffered by many local and state governments. Should traditional Public Safety as a user group be moved to a band in which no other group is eligible (assuming the major problem of the spectrum's availability is resolved), the migration of many Public Safety entities to more advanced technologies will no doubt be slowed. UTC again urges a regulatory framework in the 800 MHz band that encourages shared migration to advanced systems, to reduce costs, increase spectrum efficiency and spread the benefits of greater capacity and better equipment features.

C. Suggestions that incumbent users remain on their frequencies on a temporary basis would cause uncertainty and slow the development of advanced systems.

As the Commission is well aware, anticipation of regulatory change causes uncertainty in the telecommunications service affected and slows to a trickle any investment in system improvement. UTC is concerned that multi-year re-banding schemes would have the same effect, slowing the development of

advanced 800 MHz systems and negatively impacting equipment manufacturers involved in this band.

The original Private Wireless Coalition proposal, for example, walked through a highly complex timeline to accomplish a “daisy chain” of relocation and re-tuning.[11] UTC believes that any thoughtful attempt at re-banding will require the same level of detail, the same or greater complexity, and several years to implement. While the daisy chain is moving forward, as certain licensees move to vacated spectrum, in turn hopefully providing adequate vacated spectrum for the next scheduled move, all potentially affected licensees must remain in limbo.

Without knowing the exact parameters of their eventual spectrum “home”, without knowing when they will be required to relocate and when their systems will be operational on new frequencies, the entire 800 MHz band (excepting the 861-866 MHz CMRS portion, in which, interestingly, no one has suggested changes) will be held in an unreasonable grip of uncertainty. This is hardly the bright, interference-free future envisioned for this critical frequency band. Instead, because most licensees are not in the wireless communications business, the tens of millions of dollars anticipated in investment in advanced technologies and shared regional systems likely will be diverted to other purposes. Both the industries relying on this frequency band and the public they serve will lose the potential benefits of improved communications systems for the several years that growth will be halted. The Council suggests that unnecessary uncertainty and the resulting

[11] *See,* Comments of the Private Wireless Coalition, at 13-23.

D. The Private Wireless Coalition compromise proposal includes significant unanswered questions that must be addressed adequately.

UTC is aware of the discussions by the associations making up the Private Wireless Coalition (PWC) with other interested parties toward a compromise proposal in this proceeding. While UTC was not included in these discussions, the Council has been hopeful that the eventual proposal would provide an integrated solution that would eliminate harmful interference to Public Safety and other systems at a minimum disruption to licensees, while offering a regulatory framework that would meet future needs of users in the band.

UTC's understanding of the compromise position, in summary, is that: Nextel Communications would leave its frequencies in the General Category and interleaved pools below 861 MHz, while Public Safety licensees in the NPSPAC frequencies would move to the lowest 3 MHz of the band, 851-854 MHz. Nextel would gain the 866-869 MHz portion of the band, and also would be provided spectrum outside the 800 MHz in exchange for its current holdings below 861 MHz. "Cellularized" systems meeting the PWC's definition of the term would not be permitted below 861 MHz without a waiver of FCC Rules, and a "guard band" of two megahertz (859-861 MHz) would house current site-specific PLMR eligibles moving from the General Category. Other, carefully timed retuning would be necessary to accomplish the mandated changes in the band. Finally, traditional Public Safety eligibles would receive a five-year preference for any remaining vacated Nextel frequencies below 861 MHz.

UTC commends the PWC for a great deal of complex work in moving this proposal forward. In spite of its complexity, this proposal calls for less mandatory

retuning than other proposals placed on the record earlier in this proceeding. The Council is confident that the work of all interested parties will continue after the filing of reply comments.

However, UTC is unable to join the group of parties supporting the above proposal at this time. There are several extremely important issues for which the PWC does not yet have answers. UTC and its members consider these issues too important to ignore in search of consensus, and urge the Commission either to resolve, or to require thoughtful resolutions from the parties involved, before considering adoption of the compromise proposal.

1. Funding

Although the compromise proposal would require less mandatory retuning than other proposals, many hundreds of licensees and systems would be impacted. UTC members alone would incur tens of millions of dollars in costs to retune to other portions of the 800 MHz band, whether currently affected by CMRS interference or not. Total costs to Public Safety, Business, Industrial/Land Transportation, SMR and CMRS licensees under the compromise proposal would run into the hundreds of millions of dollars.

However, the only funding UTC understands to be included in the compromise proposal is the original $500 million pledged by Nextel to reimburse traditional Public Safety licensees, and it has been recognized generally that this amount likely will be insufficient even for this purpose.

Dozens of commenters in this proceeding have stressed that any licensees affected by mandatory retuning must be compensated fully. How to do so is complicated by the absence of a clear beneficiary in all instances of

800 MHz re-banding that should bear the reimbursement costs. . UTC believes that a process of voluntary retuning through contractual agreement is preferable to wholesale mandatory retuning because it minimizes the disruption to incumbents, and encourages market-based solutions for reimbursement that are more likely to ensure that incumbents are made whole..

2. Special frequency pools.

a. Border Areas

None of the many proposals advanced as solutions to this complex problem has dealt adequately with the issue of border areas. There are fewer frequencies available for license in the Canadian border regions above Line A, and there are both fewer, and offset, frequencies that complicate licensing in the Mexican border region below Line C. As the Commission knows, the border area frequencies are the product of lengthy negotiations leading to international treaties. It is questionable whether the existing bandplan for these regions could or should be changed in an FCC regulatory proceeding.

Many CI entities operate partially or wholly within these border areas and are concerned greatly about the possibility that they would lose access to heavily used frequencies in a re-banding effort. Due to the restrictions on availability, simply retuning to other frequencies generally would not be possible for these licensees. UTC urges that any re-banding solution for the rest of the country also account for the impact on licensees in the Canadian and Mexican border areas. If the FCC determines that it is authorized to change the border area bandplans, licensees in these regions must have access to at least the same number

of frequencies now available. These licensees also must receive the benefit of any technical rules amendments designed to prevent interference to their systems.

b. Buffer Bands

Another "pool" issue arises from the PWC compromise proposal for a "guard band" from 859-861 MHz. While specific proposed rules for the guard band are unclear, there has been discussion that lower power levels and reduced operating areas would be required in this portion of the band to provide a buffer between cellularized CMRS and traditional Public Safety systems.

UTC has already stated its opposition to CI entities being forced into a band where they would be subjected to increased harmful interference from cellularized CMRS operations. The Council also is concerned that new rules would adversely impact CI systems already located in the proposed guard band; for example, by requiring some frequencies in a wide-area utility communications system to operate at lower power levels than other frequencies at the same base station location. Such restrictions would hamper the development of trunked or more efficient systems, and could even pose a danger to CI personnel communicating on more than one frequency during a conversation. Utility workers operating on or near high-power lines, for example, cannot afford to lose communications suddenly because their radios switch to a lower-power guard band frequency. Nor should CI entities be required to simply cease using important frequencies to avoid the problem. To eliminate this danger, UTC recommends that, should the FCC consider adopting the PWC compromise proposal, 1) incumbent systems on the guard band frequencies should be

grandfathered under existing rules, and 2) these incumbents should be permitted to migrate voluntarily to any vacated spectrum lower in the 800 MHz band.

3. Need for stricter technical rules.

As has been stated by too many commenters to count, re-banding under existing technical rules will not eliminate interference. UTC can speak only on behalf of its own members, but believes it unacceptable to allow some licensees to cause harmful interference to others simply because the existing technical rules failed to anticipate interference between cellularized and other systems. The PWC compromise, after moving large groups of licensees around the band, also would not eliminate all interference, especially intermodulation. Nor is UTC aware of any recommendations for changes to technical rules in the compromise proposal that might diminish further the potential for interference.

After significant work by RF engineers from UTC member companies, UTC offers specific recommendations in Section IV, below, for stricter technical rules to eliminate interference regardless of bandplan. UTC urges the Commission to adopt these or similar standards whether or not it decides to change the 800 MHz bandplan.

4. Technology restrictions that would hinder growth.

As stated above, UTC understands that the PWC compromise would divide the existing 800 MHz allocation into cellularized and non-cellularized areas of operations, with the dividing line at 861 MHz. While UTC recognizes and supports the PWC's efforts to prevent future interference, the Council is concerned that this framework would hamper unnecessarily the growth of advanced technology and discriminate against existing systems.

As stated in UTC's Comments, utilities and other CI entities are moving toward more advanced technology, including digital systems that often will be shared with traditional Public Safety entities. UTC does not contemplate that such systems would require cellularized architecture, at least for some years, in order to offer sufficient capacity to their users. However, especially in major urban areas, the demand for communications capacity is so great that such architecture eventually may be necessary. Technical rules requiring sound engineering in implementing such systems and quick resolution of any interference would seem to make arbitrary, technology-based restrictions unnecessary.

There may also be harm to existing licensees: the compromise proposal appears to discriminate against SouthernLINC's existing CMRS system. UTC understands that most of SouthernLINC's licensed spectrum is currently below 861 MHz: under the compromise proposal, it would not gain access to any designated "cellularized" spectrum above 861 MHz. At the same time, SouthernLINC's subscriber base is growing, and its system includes operations in major metropolitan areas of the Southeast where carefully engineered facilities meeting the "cellularized" definition will be needed to meet customer demand. UTC suggests that SouthernLINC's situation, while currently unusual among 800 MHz licensees, is an immediate example of the pitfalls of imposing technology-based restrictions with unforeseen anti-competitive consequences.

IV. UTC Continues to Urge Stricter Technical Rules in the 800 MHz Band to Reflect the Disparity of Equipment Now in Use.

To truly meet the goals of this proceeding, the FCC must find, not only a means of identifying and resolving efficiently existing 800 MHz interference, but a solution that will prevent further occurrences. In this, UTC concurs with the Association of Public-Safety Communications Officials-International (APCO) that "[t]he underlying factors creating the potential for interference need to be eliminated before the interference actually occurs and threatens the safety of life and property."[12] This is true for interference to CI systems as well as those operated by traditional Public Safety agencies.

Many commenters in this proceeding noted the existence of rules requiring interference resolution and urged the enforcement of these rules and/or adoption of other technical means to eliminate interference.[13] In discussions with its members and other interested parties, UTC has come to believe strongly that outdated technical rules, written long before digital technology was available, should be updated and stricter standards adopted to prevent interference among the current mix of technologies in use. To provide specific recommendations, UTC formed a technical subcommittee of RF engineers from member entities with substantial 800 MHz systems. The Council's consensus position, based on the subcommittee's work, is offered here.

A. UTC offers specific recommendations to reduce out-of-band emissions and to define harmful interference.

[12] Comments of APCO, National Association of Counties, National League of Cities, National Association of Telecommunications Officers and Advisors, at 2 (emphasis in original).
[13] *See, e.g.,* Comments of Duke Energy Corporation at 6; Comments of Access Spectrum at 6-7; Comments of Fairfax County, Virginia; Comments of Delmarva Power & Light company and Atlantic City Electric Company at 12-16.

UTC's technical subcommittee examined FCC policies and industry recommendations across several areas, and recommends that the Commission modify its regulations with respect to allowable emissions for the 800 MHz band to make them more stringent and in keeping with standards adopted in other bands.[14]

- The FCC should adopt the Adjacent Channel Coupling Protocol (ACCP) to replace its current "emission mask" in governing equipment to be used in the 800 MHz band. This is similar to the requirement adopted for the 700 MHz Public Safety allocation. These standards would replace relevant regulations for each segment of the 800 MHz band, which would require new ACCP tables be developed.
- The FCC should extend more stringent out-of-band emissions (OOBE) attenuation requirements to 800 MHz communications systems to afford improved and consistent adjacent-channel protection from CMRS transmissions in the band. Such standards would be necessary especially if the Commission decides to implement the PWC compromise or any plan that subdivides the 800 MHz allocation into distinct, technology-based segments. UTC's technical subcommittee is refining a specific recommendation for OOBE attenuation based on FCC Rules governing other services, and will offer its recommendation as soon as possible.

[14] UTC recommends that the standards offered herein be adopted across the 700 MHz, 800 MHz and 900 MHz land mobile allocations to provide consistency and to anticipate multiple-band technology that is already becoming commercially available. However, to contain its comments within the scope of this proceeding, UTC refers only to the 800 MHz band in these Reply Comments.

- The FCC should adopt the APCO "Best Practices Guide" recommendation to require that user receiver equipment provide a minimum of 75 dB intermodulation specification.[15] This requirement is fairly stringent; however, it is UTC's understanding that currently available equipment from multiple manufacturers comes very close to complying with it. UTC recognizes the need for equipment manufacturers to support industry efforts to resolve these problems, and will be happy to work further with them to arrive at technical standards that will prevent future interference.
- The FCC should adopt a standard defining a reduction in system reliability of greater than one percent (> 1%) as "harmful interference."[16] UTC recommends that the standards found in Part 101 of the Commission's Rules be adopted to determine how system reliability is measured. The FCC should codify and amend its regulations as necessary to allow for external filtering and other added equipment to be used to reduce or eliminate interference.

B. Licensees causing interference should correct it at their cost.

UTC was among dozens of commenters arguing that the party causing interference to another licensed system is responsible for resolving it, and doing so at its cost. Private land mobile community members long have operated under a "first-in-time" policy whereby the party coming to a frequency (or

[15] *See,* APCO Best Practice Guide, December 2000, at 14; *see also,* Interference Technical Appendix, Issue 1.41, Motorola, February 2002, at 44; "Six Month Status Report of the Project 39 Technical Committee", March 19, 2002, attachment 5.
[16] *See,* National Coordinating Committee – Implementation Subcommittee, Appendix O (http://npstc.du.edu/documents/IM00039-P024-Appendix-O.pdf) , at 126.

presumably, making major changes to its operations such as replacing an analog with a celllularized digital system), must bear the financial and general responsibility for eliminating any interference it causes to an existing station.[17] This policy should remain effective regardless of whether the interferor is operating within published specifications while causing interference.

It simply should not be possible for a licensee to be "in compliance with the rules" while causing interference to other licensees. UTC joins those commenters urging incorporation of the long-held "first-in-time" policy into the Rules as necessary for enforcement. UTC also supports commenters calling for a specific timeframe in which interference must be resolved once identified, and suggests a period of no more than sixty (60) days between the time the interfering party is notified and the completion of *bona fide* engineering work to correct the problem. [18]

C. To help resolve interference quickly, UTC recommends a notification requirement and other measures to assist all 800/900 MHz frequency coordinators.

Whether the FCC imposes a new bandplan on the 800 MHz band or adopts UTC's market-based solution for the future, frequency coordination will remain a necessary part of spectrum management for the foreseeable future. Therefore, UTC recommends a few simple steps to facilitate cooperation between coordinated and geographically licensed portions of the band.

---

[17] *See,* Comments of Duke Energy Corporation at 6, citing Midnight Sun Broadcasting, 11 FCC Rcd 1119 (1947).

[18] *See,* Comments of Delmarva Power & Light Company and Atlantic City Electric Company, at 16; Comments of SCANA Corporation, at 16.

First, identifying the source of interference is often difficult due to the mix of licensing methods in the band. UTC urges the Commission to require CMRS operators implementing low-site, cellularized architecture to notify all certified 800 MHz frequency advisory committees (coordinators) 30 days in advance of initiating transmissions from a new cellsite/base station. This requirement would be limited to new sites at which any frequency to be used is listed in the Business, Industrial/Land Transportation or Public Safety pool.

Second, coordinators should adopt adjacent-channel spacing standards for use in coordinating new 800 MHz systems in pools they manage (Business-Industrial/Land Transportation or Public Safety). Coordinators should review the spacing of channels adjacent to the frequency under consideration, as well as co-channel spacing, during the coordination process.

Finally, should the Commission adopt a re-banding plan mandating that incumbent systems retune to new frequencies, all certified 800/900 MHz frequency coordinators must be included in the coordination process, and in any industry group formed to carry out this complex undertaking. Specialized user groups, including CI entities, rely on certain coordinators to understand their needs and to ensure that their interests are represented. All PLMR industry groups must be included in a non-discriminatory coordination/retuning/re-engineering process should the Commission decide to require it.

D. UTC supports commenters calling for a technical examination of the 800 MHz band prior to the adoption of new rules.

As UTC noted in its Comments, the current 800 MHz band is a complicated mix resulting from almost thirty years of various regulatory policies and processes. While UTC and other parties have undertaken research to learn more details of who is licensed, where, and what equipment they are using, the FCC itself must have a clear understanding of the real impact of its decisions prior to adopting new rules for the band. Therefore, UTC agrees with commenters recommending a thorough technical examination of the band prior to a final decision in this matter.[19] UTC is not convinced that an audit of the FCC's database to determine construction status, such as that undertaken in the refarmed bands below 512 MHz, is sufficient for this situation. Rather, technical experts – the FCC's and the industry's – must come to some consensus on the extent and impact of any mandatory retuning and the degree to which it actually would eliminate interference.[20] UTC urges further that experts from *all* user groups be included in this effort. Only then, when the FCC has a better idea of just what it is considering, and who would be harmed by it, can it come to a reasoned decision in this complex proceeding.

V. Conclusion

Wherefore, the premises considered, UTC requests respectfully that the Commission consider the positions put forth in these Reply Comments and proceed in a manner consistent with the views expressed herein.

---

[19] *See,* Comments of the American Mobile Telecommunications Association at 7; Comments of Delmarva Power & Light and Atlantic City Electric Company at 5.

[20] UTC notes that, given the wide disparity in engineering conclusions, as well as proposed regulatory solutions, the FCC may determine that a *Further Notice of Proposed Rulemaking*, with specific proposed rules, is necessary.